

PABPC4L siRNA (m): sc-151980

BACKGROUND

PABPC4L (poly(A) binding protein, cytoplasmic 4-like) is a 370 amino acid cytoplasmic protein belonging to the polyadenylate-binding protein type-1 family. PABPC4L contains four RRM (RNA recognition motif) domains and may bind RNA. The gene encoding PABPC4L maps to human chromosome 4, which houses nearly 6% of the human genome and has the largest gene deserts (regions of the genome with no protein encoding genes) of all of the human chromosomes. Defects in some of the genes located on chromosome 4 are associated with Huntington's disease, Ellis-van Creveld syndrome, methylmalonic acidemia and polycystic kidney disease.

REFERENCES

1. Dobson, C.M., et al. 2002. Identification of the gene responsible for the cblA complementation group of vitamin B₁₂-responsive methylmalonic acidemia based on analysis of prokaryotic gene arrangements. *Proc. Natl. Acad. Sci. USA* 99: 15554-15559.
2. Velinov, M., et al. 2005. Polycystic kidneys and del (4)(q21.1q21.3): further delineation of a distinct phenotype. *Eur. J. Med. Genet.* 48: 51-55.
3. Hillier, L.W., et al. Generation and annotation of the DNA sequences of human chromosomes 2 and 4. *Nature* 434: 724-731.
4. Verny, C., et al. 2007. Cognitive changes in asymptomatic carriers of the Huntington disease mutation gene. *Eur. J. Neurol.* 14: 1344-1350.
5. Ca da, D.N., et al. 2008. A Turkish family with Ellis-van Creveld syndrome in six siblings; linkage analysis on 4p16 region (D4S3360-D4S2366). *Genet. Couns.* 19: 387-395.
6. Nørremølle, A., et al. 2009. 4p16.3 haplotype modifying age at onset of Huntington disease. *Clin. Genet.* 75: 244-250.

CHROMOSOMAL LOCATION

Genetic locus: Pabpc4l (mouse) mapping to 3 B.

PRODUCT

PABPC4L siRNA (m) is a pool of 3 target-specific 19-25 nt siRNAs designed to knock down gene expression. Each vial contains 3.3 nmol of lyophilized siRNA, sufficient for a 10 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see PABPC4L shRNA Plasmid (m): sc-151980-SH and PABPC4L shRNA (m) Lentiviral Particles: sc-151980-V as alternate gene silencing products.

For independent verification of PABPC4L (m) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-151980A, sc-151980B and sc-151980C.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

STORAGE AND RESUSPENSION

Store lyophilized siRNA duplex at -20° C with desiccant. Stable for at least one year from the date of shipment. Once resuspended, store at -20° C, avoid contact with RNases and repeated freeze thaw cycles.

Resuspend lyophilized siRNA duplex in 330 μ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330 μ l of RNase-free water makes a 10 μ M solution in a 10 μ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

PABPC4L siRNA (m) is recommended for the inhibition of PABPC4L expression in mouse cells.

SUPPORT REAGENTS

For optimal siRNA transfection efficiency, Santa Cruz Biotechnology's siRNA Transfection Reagent: sc-29528 (0.3 ml), siRNA Transfection Medium: sc-36868 (20 ml) and siRNA Dilution Buffer: sc-29527 (1.5 ml) are recommended. Control siRNAs or Fluorescein Conjugated Control siRNAs are available as 10 μ M in 66 μ l. Each contain a scrambled sequence that will not lead to the specific degradation of any known cellular mRNA. Fluorescein Conjugated Control siRNAs include: sc-36869, sc-44239, sc-44240 and sc-44241. Control siRNAs include: sc-37007, sc-44230, sc-44231, sc-44232, sc-44233, sc-44234, sc-44235, sc-44236, sc-44237 and sc-44238.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor PABPC4L gene expression knockdown using RT-PCR Primer: PABPC4L (m)-PR: sc-151980-PR (20 μ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.